maintaining the data needed, and c including suggestions for reducing	lection of information is estimated to ompleting and reviewing the collect this burden, to Washington Headqu uld be aware that notwithstanding an DMB control number.	ion of information. Send comments arters Services, Directorate for Info	s regarding this burden estimate ormation Operations and Reports	or any other aspect of th , 1215 Jefferson Davis	nis collection of information, Highway, Suite 1204, Arlington	
1. REPORT DATE 2004	2 DEPORT TYPE			3. DATES COVERED 00-00-2004 to 00-00-2004		
4. TITLE AND SUBTITLE				5a. CONTRACT NUMBER		
Airspace Management In Global CONOPs (CENTAF CENTRIC)				5b. GRANT NUMBER		
				5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)				5d. PROJECT NUMBER		
				5e. TASK NUMBER		
				5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) CADRE/AR,Director, Airpower Research Institute,401 Chennault Circle,Maxwell AFB,AL,36112-6428				8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)		
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAIL Approved for publ	ABILITY STATEMENT ic release; distributi	on unlimited				
13. SUPPLEMENTARY NO	OTES					
14. ABSTRACT						
15. SUBJECT TERMS						
16. SECURITY CLASSIFIC		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON		
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	Same as Report (SAR)	2		

Report Documentation Page

Form Approved OMB No. 0704-0188

CADRE Quick-Look

Catalyst for Air & Space Power Research Dialogue



Airspace Management In Global CONOPs (CENTAF CENTRIC)

Alexander M. Wathen

Problem. It has been one year since the conclusion of the full-up combat operations of Operation Iraqi Freedom (OIF) and Central Command Air Forces (CENTAF) has yet to release the lessons learned formulated by their expert airspace managers.

Discussion. OIF provided a unique point in time where experienced airspace managers who had teamed together to execute Operation Enduring Freedom (OEF) had the opportunity to come together again for the preparation and execution of another major combat operation. OIF was the most complex, saturated, and intensive airspace scenario ever experienced. It is doubtful there will ever again be another major combat operation like it from the airspace point of view. It is imperative the airspace management community benefit from the techniques and procedures those professionals developed in building the airspace plan and the execution of that plan.

Here are some high notes derived from interviewing just a few of those airspace managers. Many are contained in the lessons learned they have drafted, that is yet unreleased by CENTAF:

- 1. There were over 1,800 airspace control measures (ACMs) developed. Over 1,200 of those ACMs were used on a daily basis. In fact, initially, the Theater Battle Management Core System (TBMCS) was unable to handle all those ACMs.
- 2. A concept of setting a Command and Control & Intelligence, Surveillance, and Reconnaissance (C2ISR) corridor between the refueling tracks and the kill boxes was developed.
 - 3. A concept called "driveways" was developed that should be established as an ACM.
- 4. Operation Southern Watch (OSW) had been in effect for quite a while. The airspace management plan for OIF was completely different from OSW. A challenge they faced was transitioning the crews from OSW to OIF. The CAOC accomplished this in phases. This is an important portion of the lessons learned that should be documented.
- 5. The technique of capturing visual images of the airspace control order and plan from images generated by Falcon View, a software portion of the Air Force Mission Planning Support System, and emailing them to the aircrew planning staffs was implemented. They were also posted to the classified web sites. This should be formalized and software needs to be developed to automate this process.
- 6. The technique called "quick flow" was instrumental in allowing the massive number of refuelings to be performed during OIF.
- 7. Air Mobility Command's (AMC) normal operating realm is unclassified. The Combined Air Operations Center (CAOC) eats, sleeps, and breathes classified. This is an issue.
- 8. Internal Look, a very complex computer-based and assisted exercise (CPX) that does not involve combat forces, was conducted prior to the air campaign. This proved invaluable.
- 9. The majority of energy expended by the Airspace Manager was spent coordinating with host nations regarding airspace. Engagement folks in the A5 directorate need to be continually aware of the impact of airspace access and be working (along with the A3) host nation agreements to that endeavor.

The College of Aerospace Doctrine, Research and Education (CADRE) *Quick-Looks* are written by military defense analysts assigned to Air University (AU) and beyond are available electronically at the AU Research Web Site (https://research.au.af.mil) or (http://research.airuniv.edu). Comments are encouraged. Send to: CADRE/AR, Director, Airpower Research Institute, 401 Chennault Circle, Maxwell AFB AL 36112-6428 or e-mail: cadre/arr@maxwell.af.mil.

10. The command relationship of the Director of Mobility Forces (DIRMOBFOR) within the CAOC warrants review.

Why was OIF was the most complex, saturated, and intensive airspace scenario ever experienced? Gas. AVPOL. JP-8. Whatever your jet uses, it was readily abundant in the Middle East and the ability to get it into the tankers that performed countless air refuelings was also there. You might be able to crowd all those fighters and airlifters in the skies over any other continent, but you won't be able to feed the tankers who fed those fighters and airlifters.

Recommendation: This is a very important issue. We must exploit the existing knowledge before it is lost or distorted. Expedite the release of the CENTAF Airspace Management Lessons Learned. Refer to CADRE Quick-Look 04-22, *Airspace Management In Global CONOPs*, at https://research.au.af.mil/papers/ay2004/ari/QL2004-22.pdf for more discussion on this issue.